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Application No.: 10/525675
Docket No.: AD6925USPCT

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Amendments to the Claims

1. (Currently amended) A fluorine-containing ethylene graft copolymer composition comprising: the grafted copolymer that is the product of the reaction between an ethylene copolymer selected from the group consisting of ethylene glycidyl acrylate copolymers and ethylene glycidyl methacrylate copolymers ~~ethylene/glycidyl (meth)acrylate copolymer~~ and a fluorine-containing grafting agent carboxylic acid selected from the group consisting of fluorinated carboxylic acids, perfluorinated carboxylic acids and perfluoro polyether carboxylic acids of the formula

$$\text{CF}_3\text{--}[\text{CF}(\text{CF}_3)\text{--}\text{CF}_2\text{--}\text{O}]_n\text{CF}_2\text{CO}_2\text{H},$$
where n is an integer from about 5 to about 50.
2. (Currently amended) A fluorine-containing ethylene graft copolymer composition of claim 1 ~~comprising: the product of the reaction between an ethylene/glycidyl (meth)acrylate copolymer and a perfluorinated carboxylic acid,~~ characterized in that the grafted copolymer absorbs light in the region of from about 1750 cm⁻¹ to about 1800 cm⁻¹ of the infra red absorption spectrum.
3. (Currently amended) A blend comprising at least two thermoplastic materials wherein at least one is a fluorine-containing ethylene graft copolymer composition of claim 1 ~~comprising the product of the reaction between an ethylene/glycidyl (meth)acrylate copolymer and a fluorine-containing carboxylic acid.~~
4. (Currently amended) A blend comprising at least two thermoplastic materials wherein at least one is a fluorine-containing ethylene graft copolymer composition of claim 2 ~~comprising the product of the reaction between an ethylene/glycidyl (meth)acrylate copolymer and a fluorine-containing carboxylic acid, characterized in that the copolymer absorbs light in the region of from about 1750 cm⁻¹ to about 1800 cm⁻¹ of the infra-red absorption spectrum.~~
5. (Currently amended) An article having a surface with a total surface energy of less than 25 dyne/cm comprising: a fluorine-containing ethylene graft copolymer composition of claim 1 ~~comprising the product of the reaction between an ethylene/glycidyl (meth)acrylate copolymer and a fluorine-containing carboxylic acid.~~

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6. (Currently amended) An article having a surface with a total surface energy of less than 25 dyne/cm comprising: a fluorine-containing ethylene graft copolymer composition of claim 2 ~~comprising the product of the reaction between an ethylene/glycidyl (meth)acrylate copolymer and a fluorine-containing carboxylic acid, characterized in that the copolymer absorbs light in the region of from about 1750 cm^{-1} to about 1800 cm^{-1} of the infra-red absorption spectrum.~~
7. (Currently amended) A stain-resistant fiber comprising a fluorine-containing ethylene graft copolymer composition of claim 1 ~~comprising the product of the reaction between an ethylene/glycidyl (meth)acrylate copolymer and a fluorine-containing carboxylic acid.~~
8. (Currently amended) A stain-resistant fiber comprising a fluorine-containing ethylene graft copolymer composition of claim 2 ~~comprising the product of the reaction between an ethylene/glycidyl (meth)acrylate copolymer and a fluorine-containing carboxylic acid, characterized in that the copolymer absorbs light in the region of from about 1750 cm^{-1} to about 1800 cm^{-1} of the infra-red absorption spectrum.~~
9. (Currently amended) An article formed by injection molding or by extrusion comprising a fluorine-containing ethylene graft copolymer of claim 1 ~~composition comprising the product of the reaction between an ethylene/glycidyl (meth)acrylate copolymer and a fluorine-containing carboxylic acid.~~
10. (Currently amended) An article formed by injection molding or by extrusion comprising a fluorine-containing ethylene graft copolymer composition of claim 2 ~~comprising the product of the reaction between an ethylene/glycidyl (meth)acrylate copolymer and a fluorine-containing carboxylic acid, characterized in that the copolymer absorbs light in the region of from about 1750 cm^{-1} to about 1800 cm^{-1} of the infra-red absorption spectrum.~~
11. (Currently amended) A mold release additive comprising a fluorine-containing ethylene graft copolymer composition of claim 1 ~~comprising the product of the reaction between an ethylene/glycidyl (meth)acrylate copolymer and a fluorine-containing carboxylic acid.~~

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12. (Currently amended) A mold release additive comprising a fluorine-containing ethylene graft copolymer composition of claim 2 ~~comprising the product of the reaction between an ethylene/glycidyl (meth)acrylate copolymer and a fluorine-containing carboxylic acid, characterized in that the copolymer absorbs light in the region of from about 1750 cm^{-1} to about 1800 cm^{-1} of the Infra-red absorption spectrum.~~
13. (New) A fluorine-containing ethylene graft copolymer composition of claim 1 wherein the ethylene copolymer comprises copolymerized units of i) ethylene, ii) a second monomer selected from the group consisting of glycidyl acrylate and glycidyl methacrylate and iii) a third monomer selected from the group consisting of esters of unsaturated carboxylic acids having from 3 to 12 carbon atoms and vinyl acetate.
14. (New) A composition of claim 13 wherein said third monomer is an ester selected from the group consisting of acrylic acid esters and methacrylic acid esters.
15. (New) A composition of claim 13 wherein said third monomer is vinyl acetate.
16. (New) A composition of Claim 1 wherein said fluorine-containing perfluoro polyether carboxylic acid is an acid of the formula



where n is an integer from 12 to 26.